

## ABSTRACT

In accordance with a vehicle motion control apparatus, a steering angle ( $\theta_h$ ) of a steering wheel is determined on the basis of a rotation angle ( $\theta_{pm}$ ) of an assist motor (24m) detected by a rotation angle sensor (24s) and a rotation angle ( $\theta_{vm}$ ) of a gear ratio variable motor (32m) detected by a rotation-angle sensor (32s), and a VGRS control process (40a) of a gear ratio variable mechanism is executed on the basis of the determined steering angle ( $\theta_h$ ). Accordingly, since the steering angle ( $\theta_h$ ) of the steering wheel is determined on the basis of the rotation angle ( $\theta_{vm}$ ) used for the VGRS control process (40a) of the gear ratio variable mechanism and the rotation angle ( $\theta_{pm}$ ) used for an EPS control process (30a) of an EPS actuator, it is possible to obtain the steering angle ( $\theta_h$ ) of the steering wheel without a steering angle sensor. Therefore, it is possible to reduce the number of the parts of a vehicle motion control apparatus.